



U.S. ENVIRONMENTAL PROTECTION AGENCY  
 Office of Pesticide Programs  
 Registration Division (7505P)  
 1200 Pennsylvania Ave., N.W.  
 Washington, D.C. 20460

EPA Reg. Number:

1381-264

Date of Issuance:

6/28/18

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Glufosinate 280 SL

Name and Address of Registrant (include ZIP Code):

Lisa Mathias  
 Product Registration Specialist  
 Winfield Solutions, LLC  
 PO Box 64589, MS 5705  
 Shoreview, MN 55126

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Erik Kraft, Product Manager 24  
 Fungicide & Herbicide Branch, Registration Division (7505P)

Date:

6/28/18

2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 1381-264.”
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 02/07/2018

If you have any questions, please contact Lisa Pabel by phone at (703) 347-0459, or via email at [pabel.lisa@epa.gov](mailto:pabel.lisa@epa.gov).

# Glufosinate 280 SL [Herbicide]

Glufosinate 280 SL is a non-selective herbicide that provides control of a broad spectrum of broadleaf weeds and grassy weeds. Glufosinate 280 SL is registered for use as a:

- burndown treatment prior to planting or prior to emergence of canola, corn, cotton, olive, sweet corn, soybean and sugar beets
- post emergence weed control herbicide to be applied on crops containing the LibertyLink® trait
- post emergence weed control in cotton when applied with a hooded sprayer in-crop
- post emergence weed control in listed tree, olives, vine, and berry crops
- applied for potato vine desiccation.

**ACTIVE INGREDIENT:**

Glufosinate-ammonium*	24.5%**
OTHER INGREDIENTS:	75.5%
<b>TOTAL</b>	<b>100.0%</b>

\*CAS Number 77182-82-2

\*\*Equivalent to 2.34 pounds of active ingredient per U.S. gallon.

[For ≤ 5 Gallon Containers:] [Shake Well Before Use]  
 [For > 5 Gallon Containers:] [Shake Well, Agitate or Recirculate Before Use]

## KEEP OUT OF REACH OF CHILDREN CAUTION

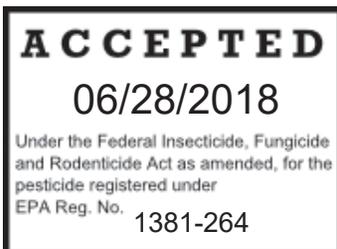
Si usted no entiende la etiqueta busque a alguien para que se la explique a usted en detalle.  
 (If you do not understand the label find someone to explain it to you in detail)

**See booklet for additional PRECAUTIONARY STATEMENTS, COMPLETE DIRECTIONS FOR USE, WARRANTY  
DISCLAIMER, AND LIMITATION OF LIABILITY.**

FIRST AID	
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-424-7452 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN</b>	
If this product is ingested, endotracheal intubation and gastric lavage should be performed as soon as possible, followed by charcoal and sodium sulfate administration.	

EPA REG. NO.: XXXX-XXX

**Manufactured For:**  
 Winfield Solutions, LLC  
 P.O. Box 64589  
 St. Paul, MN 55164-0589



EPA EST. NO.: \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_

1/0627/8

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION.** Harmful if absorbed through skin, swallowed or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing and breathing vapor. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**Personal Protective Equipment (PPE)**

**Applicators and other handlers must wear:**

- Long sleeved shirt and long pants;
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils;
- Shoes and socks; and
- Protective eyewear (goggles, face shield or safety glasses).

Mixer/loaders supporting aerial applications to corn, canola, soybean, and cotton must use closed mixing/loading systems.

Mixers/loaders supporting aerial applications must wear a minimum of a NIOSH approved filtering face piece respirator with any N filter (TC-84A). You can also use other NIOSH approved particulate respirators that offer more protection.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with Glufosinate 280 SL's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Wash hands after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling Glufosinate 280 SL. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENGINEERING CONTROLS STATEMENT**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [(40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water or to areas where surface water is present. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters or rinsate.

This pesticide is toxic to vascular plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions, Glufosinate 280 SL may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands, etc. or on the downhill side of fields where run-off could occur to minimize water run-off is recommended.

**DIRECTIONS FOR USE**

**It is a violation of Federal law to use Glufosinate 280 SL in a manner inconsistent with its labeling.**

Do not use Glufosinate 280 SL until you have read the entire label. Do not apply Glufosinate 280 SL in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**In the State of New York Only: Not For Use In Nassau and Suffolk Counties.**

### AGRICULTURAL USE REQUIREMENTS

Use Glufosinate 280 SL only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses; and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of Glufosinate 280 SL that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted entry-interval (REI) of 12 hours, with the following exceptions:**

- Canola, corn and soybean scouting – REI of 4 days
- Moving irrigation pipe (all crops) – REI of 7 days

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls worn over short-sleeved shirt and short pants;
- Chemical resistant gloves such as barrier laminate, butyl rubber 14 mils, nitrile rubber >14 mils, neoprene rubber > 14 mils, polyvinyl chloride (PVC) > 14 mils, or Viton > 14 mils;
- Chemical resistant footwear plus socks; and
- Protective eyewear (goggles, face shield or safety glasses).

### IMPORTANT CROP SAFETY INFORMATION READ BEFORE USING GLUFOSINATE 280 SL

#### BURNDOWN TREATMENTS

Glufosinate 280 SL may be applied as a burndown treatment **prior to planting or prior to crop emergence** of any canola, sweet corn<sup>[1]</sup>, corn, cotton, olive, soybean or sugar beet.

#### POST EMERGENT TREATMENTS

Post emergence row crop applications of Glufosinate 280 SL may be made only to crops containing the LibertyLink trait. The basis of selectivity of Glufosinate 280 SL in crops is the presence of a gene in LibertyLink crops which results in a plant that is not sensitive to the active ingredient of Glufosinate 280 SL. Tank mixtures of Glufosinate 280 SL with other products may impact crop safety and increase risk of crop injury.

**Many seed trade names are available under the LibertyLink trait, contact the seed manufacturer or seed distributor to determine if the seed variety is designated and supported to be LibertyLink.**

**Crops not containing the LibertyLink gene will be sensitive to Glufosinate 280 SL and severe crop injury and/or death may occur. Do not allow spray to contact foliage or green tissue of desirable vegetation unless the crop contains the LibertyLink trait.**

Post emergent applications of Glufosinate 280 SL may be applied to cotton not containing the LibertyLink trait using a hooded sprayer.

#### TREE, NUT, VINE AND BERRY TREATMENTS

Applications to trees, vines and berries must avoid contact of Glufosinate 280 SL solution, spray drift or mist with green bark, stems or foliage as injury may occur to trees, berries and vines. Only trunks with callused mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes or waxed containers. Contact of Glufosinate 280 SL with parts of trees, berries or vines other than mature brown bark can result in serious damage.

[<sup>1</sup> – Not for use in California]

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, or greenhouses.

Do not enter or allow others to enter treated areas until sprays have dried.

## PRODUCT INFORMATION

Glufosinate 280 SL is a water-soluble herbicide for application as a foliar spray for the control of a broad spectrum of emerged annual and perennial grass and broadleaf weeds in a variety of crops. Glufosinate 280 SL is registered for use as a:

- burndown treatment prior to planting or prior to emergence of canola, corn, cotton, sweet corn, olive, soybean and sugar beets
- post emergence weed control herbicide to be applied on crops containing LibertyLink trait
- post emergence weed control in cotton when applied with a hooded sprayer in-crop
- post emergence weed control in listed tree, olives, vine, and berry crops
- applied for potato vine desiccation.

**Many seed trade names are available under the LibertyLink trait, contact the seed manufacturer or seed distributor to determine if the seed variety is designated and supported as containing the LibertyLink trait.**

It is important to always follow a responsible integrated weed management program. Contact your local agronomic advisor for more specific information on integrated weed management in your area.

Glufosinate 280 SL is only foliar-active with little or no activity in soil. Weeds that emerge after application will not be controlled.

Apply Glufosinate 280 SL to actively growing weeds as described in the **WEED CONTROL FOR ROW CROPS** section to get maximum weed control. Uniform, thorough spray coverage is necessary to achieve consistent weed control. Necrosis of leaves and young shoots occur within 2 to 4 days after application under good growing conditions.

- Glufosinate 280 SL is rainfast 4 hours after application to most weed species; therefore, rainfall within 4 hours may necessitate retreatment or may result in reduced weed control.
- Make applications between dawn and 2 hours before sunset to avoid the possibility of reduced lambsquarters and velvetleaf control.
- Consult your local Cooperative Extension Service or Winfield Solutions, LLC representative for guidelines on the optimum application timing for Glufosinate 280 SL in your region.
- Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to environmental conditions such as drought, cool temperatures, or extended periods of cloudiness.
- To maximize weed control, do not cultivate from 5 days before an application to 7 days after an application.

### ROTATIONAL CROP RESTRICTIONS\*

Rotational crop planting intervals following application of Glufosinate 280 SL are listed below. Failure to comply with these restrictions may result in illegal residues in rotated crops.

Rotational Crop	Plant Back Interval (Minimum Rotational Crop Planting Interval from Last Application)
Canola, Corn, Cotton, Soybeans, Sweet Corn, and Sugar beets	May be planted at any time
Root and Tuber Vegetables, Leafy Vegetables, Brassica Leafy Vegetables and Small Grains (Barley, Buckwheat, Oats, Rye, Teosinte, Triticale, and Wheat)	70 days
All other crops	180 days

\*See **Application Directions for Potato Vine Desiccation** for Rotational Crop Restrictions specifically after application of Glufosinate 280 SL to potatoes.

### WEED RESISTANCE MANAGEMENT

For resistance management, Glufosinate 280 SL contains a Group 10 herbicide – Glufosinate-ammonium. Any weed population may contain or develop plants naturally resistant to Glufosinate 280 SL and other Group 10 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of Glufosinate 280 SL or other Group 10 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.

- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include:
  - 1) Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - 2) A spreading patch of non-controlled plants of a particular weed species;
  - 3) Surviving plants mixed with controlled individuals of the same species.

If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist, certified crop advisors, and/or Winfield Solutions, LLC representative for pesticide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.
- For further information or to report suspected resistance, contact your Winfield Solutions, LLC representative.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region.

### INTEGRATED PEST MANAGEMENT

Winfield Solutions, LLC recommends the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop or site systems in your area.

### WEED CONTROL FOR ROW CROPS

Rates in fluid ounce of formulated product per acre for the control of weeds as shown in the weed control tables. In weed populations with mixed species, apply at a rate needed for the species targeting less than three-inch weeds.

Table 1. Broadleaf Weeds Controlled (including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)			
Common Name	Scientific Name	22.0 Fl Oz/A	29.0 – 43.0 Fl Oz/A
		C=Control NR = Not Advised S = Suppression	C=Control NR = Not Advised S = Suppression
Amaranth, Palmer	<i>Amaranthus palmeri</i>	NR	C
Anoda, spurred	<i>Anoda cristata</i>	C	C
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C	C
Black medic	<i>Medicago lupulina L.</i>	C	C
Blueweed, Texas	<i>Helianthus ciliaris DC.</i>	C	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C	C
Buffalobur	<i>Solanum cornutum</i>	C	C
Burcucumber	<i>Sicyos angulatus</i>	C	C
Canola, volunteer <sup>1</sup>	<i>Brassica spp.</i>	C <sup>1</sup>	C <sup>1</sup>
Catchweed bedstraw (cleavers)	<i>Galium aparine L.</i>	C	C
Carpetweed	<i>Mollugo verticillata</i>	C	C
Chickweed, common	<i>Stellaria media</i>	C	C
Cocklebur, common	<i>Xanthium strumarium</i>	C	C
Copperleaf, hophornbeam	<i>Acalypha ostryaefolia</i>	C	C
Cotton, volunteer <sup>1</sup>	<i>Gossypium spp.</i>	C <sup>1</sup>	C <sup>1</sup>
Croton, tropic	<i>Croton glandulosus</i>	C	C
Croton, woolly	<i>Croton capitatus</i>	C	C

**Table 1. Broadleaf Weeds Controlled  
(including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)**

Common Name	Scientific Name	22.0 FI Oz/A	29.0 – 43.0 FI Oz/A
		C=Control NR = Not Advised S = Suppression	C=Control NR = Not Advised S = Suppression
Eclipta	<i>Eclipta alba</i>	C	C
Devil's claw	<i>Proboscidea Louisiana</i>	C	C
Fleabane, annual	<i>Erigeron annuus</i>	C	C
Galinsoga, hairy	<i>Galinsoga ciliate</i>	C	C
Galinsoga, small flower	<i>Galinsoga parviflora</i>	C	C
Groundcherry, cutleaf	<i>Physalis angulate</i>	C	C
Geranium, cutleaf	<i>Geranium dissectum L.</i>	C	C
Hempnettle	<i>Galeopsis spp.</i>	C	C
Horsenettle, Carolina <sup>2</sup>	<i>Solanum carolinense</i>	C <sup>2</sup>	C <sup>2</sup>
Jimsonweed	<i>Datura stramonium</i>	C	C
Knotweed	<i>Polygonum spec.</i>	C	C
Kochia	<i>Kochia scoparia</i>	C	C
Ladysthumb	<i>Polygonum persicaria</i>	C	C
Lambsquarters, common	<i>Chenopodium album</i>	C	C
Mallow, common	<i>Malva spec.</i>	C	C
Mallow, Venice	<i>Hibiscus trionum</i>	C	C
Marestail <sup>3</sup>	<i>Conyza Canadensis</i>	S	C
Marsh-elder, annual	<i>Iva annua</i>	C	C
Morningglory, entireleaf	<i>Ipomoea hederacea var. intergriuscula</i>	C	C
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>	C	C
Morningglory, pitted	<i>Ipomoea lacunose</i>	C	C
Morningglory, sharppod	<i>Ipomoea cordatotriloba</i>	C	C
Morningglory, Smallflower	<i>Jacquemontia tamnifolia</i>	C	C
Morningglory, tall	<i>Ipomoea purpurea</i>	C	C
Mustard, wild	<i>Sinapis arvensis</i>	C	C
Nightshade, black	<i>Solanum nigrum</i>	C	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	C	C
Pennycress	<i>Thlaspi arvense</i>	C	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C	C
Pigweed, prostrate	<i>Amaranthus blitoides</i>	C	C
Pigweed, spiny	<i>Amaranthus spinosus</i>	C	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C	C
Pigweed, tumble	<i>Amaranthus albus</i>	C	C
Puncturevine	<i>Tribulus terrestris</i>	C	C
Purslane, common	<i>Portulaca oleracea</i>	C	C
Pusley, Florida	<i>Richardia scabra</i>	S	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C	C
Ragweed, giant	<i>Ambrosia trifida</i>	C	C
Senna coffee	<i>Cassia occidentalis</i>	C	C
Sesbania, hemp	<i>Sesbania herbacea</i>	C	C
Shepherd's-Purse	<i>Capsella bursa-pastoris</i>	C	C
Sicklepod (java bean)	<i>Senna obtusifolia</i>	C	C
Sida, prickly	<i>Sida spinosa L.</i>	C	C
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	C
Smell melon	<i>Cucumis melo L. var. Dudaim</i>	C	C
Sowthistle, annual	<i>Sonchus oleraceus L.</i>	C	C
Soybeans, volunteer <sup>1</sup>	<i>Glycine max</i>	C <sup>1</sup>	C <sup>1</sup>
Spurge, prostrate	<i>Euphorbia humifusa</i>	C	C
Spurge, spotted	<i>Euphorbia maculate L.</i>	C	C

**Table 1. Broadleaf Weeds Controlled  
(including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)**

Common Name	Scientific Name	22.0 FI Oz/A	29.0 – 43.0 FI Oz/A
		C=Control NR = Not Advised S = Suppression	C=Control NR = Not Advised S = Suppression
Starbur, bristly	<i>Acanthospermum hispidum</i>	C	C
Sunflower, common	<i>Helianthus annuus</i>	C	C
Sunflower, prairie	<i>Corythucha pura</i>	C	C
Sunflower, volunteer	<i>Girassol</i>	C	C
Thistle, Russian <sup>2</sup>	<i>Salsola kali</i>	S <sup>2</sup>	C <sup>2</sup>
Velvetleaf	<i>Abutilon theophrasti</i>	C	C
Waterhemp, common	<i>Amaranthus rudis</i>	NR	C
Waterhemp, tall	<i>Amaranthus tuberculatos</i>	NR	C

<sup>1</sup> Volunteer LibertyLink crops from the previous year will not be controlled.

<sup>2</sup> May require sequential applications for control.

<sup>3</sup> For optimum control apply Glufosinate 280 SL on 6" marestalk

**Table 2. Grass Weeds Controlled  
(including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)**

Common Name	Scientific Name	22.0 FI Oz/A	29.0 – 43.0 FI Oz/A
		C=Control NR = Not Recommended S = Suppression	C=Control NR = Not Recommended S = Suppression
Barley, volunteer <sup>2</sup>		C <sup>2</sup>	C <sup>2</sup>
Barnyardgrass	<i>Echinochloa spec.</i>	C	C
Bluegrass, annual	<i>Poa annua L.</i>	C	C
Corn, volunteer <sup>1</sup>	<i>Zea mays L.</i>	C <sup>1</sup>	C <sup>1</sup>
Crabgrass, large <sup>3</sup>	<i>Digitaria sanguinalis</i>	C <sup>3</sup>	C <sup>3</sup>
Crabgrass, smooth <sup>3</sup>	<i>Digitaria ischaemum</i>	C <sup>3</sup>	C <sup>3</sup>
Cupgrass, woolly	<i>Eriochloa villosa</i>	C	C
Foxtail, bristly	<i>Setaria verticillata</i>	C	C
Foxtail, giant	<i>Setaria faberi</i>	C	C
Foxtail, green	<i>Setaria viridis</i>	C	C
Foxtail, robust purple	<i>Setaria viridis</i>	C	C
Foxtail, yellow <sup>3</sup>	<i>Pennisetum glaucum</i>	C <sup>3</sup>	C <sup>3</sup>
Goosegrass <sup>2</sup>	<i>Eleusine indica</i>	C <sup>2</sup>	C <sup>2</sup>
Johnsongrass, seedling	<i>Sorghum halepense</i>	C	C
Junglerice	<i>Echinochloa colonum</i>	C	C
Millet, wild-proso	<i>Panicum miliaceum L.</i>	C	C
Millet, proso volunteer	<i>Milium vernale</i>	C	C
Oat, wild <sup>3</sup>	<i>Avena fatua</i>	C <sup>3</sup>	C <sup>3</sup>
Panicum, fall	<i>Panicum dichotomiflorum</i>	C	C
Panicum, Texas	<i>Panicum texanum</i>	C	C
Rice, red	<i>Oryza sativa L.</i>	C	C
Sandbur, field <sup>3</sup>	<i>Cenchrus pauciflorus</i>	S <sup>3</sup>	C <sup>3</sup>
Shattercane	<i>Sorghum vulgare PERS.</i>	C	C
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C	C
Sprangletop	<i>Leptochloa spec.</i>	C	C
Sorghum, volunteer	<i>Sorghum spp.</i>	C	C
Stinkgrass	<i>Eragrostis cilianensis</i>	C	C
Wheat, volunteer <sup>2, 3</sup>	<i>Triticum spec.</i>	C <sup>2, 3</sup>	C <sup>2, 3</sup>
Witchgrass	<i>Panicum virgatum L.</i>	C	C

<sup>1</sup> Volunteer LibertyLink crops from the previous year will not be controlled. A timely cultivation 7 to 10 days after an application and/or retreatment 10-21 days after the first application is needed for controlling dense clumps of volunteer corn.

<sup>2</sup> May require sequential applications for control.

<sup>3</sup> For best control of yellow foxtail, field sandbur, crabgrass, and wild oats, treat prior to tiller initiation.

**Table 3. Biennial and Perennial Weeds Controlled  
(including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)**

**For control of the biennial and perennial weeds listed below, tank mix partners or sequential applications of Glufosinate 280 SL are specified by crop (see crop sections)**

Common Name	Scientific Name	29.0 – 43.0 Fl Oz/A
		C=Control S = Suppression
Alfalfa	<i>Medicago sativa L.</i>	C
Bermudagrass	<i>Cynodon dactylon</i>	C
Bindweed, field	<i>Convolvulus arvensis L.</i>	C
Bindweed, hedge	<i>Calystegia sepium</i>	C
Bluegrass, Kentucky	<i>Poa pratensis L.</i>	C
Blueweed, Texas	<i>Helianthus ciliaris DC.</i>	C
Bromegrass, smooth	<i>Bromus inermis</i>	C
Burdock	<i>Arctium spp.</i>	C
Bursage, woollyleaf	<i>Ambrosia grayi</i>	C
Chickweed, Mouse-ear	<i>Cerastium vulgatum L.</i>	C
Clover, red	<i>Trifolium pretense L.</i>	C
Dandelion	<i>Taraxacum officinale</i>	C
Dock, smooth	<i>Rumex spec.</i>	C
Dogbane, hemp	<i>Apocynum cannabinum</i>	S
Goldenrod, gray	<i>Solidago nemoralis</i>	S
Johnsongrass, rhizome	<i>Sorghum halepense</i>	C
Milkweed, common	<i>Asclepias syriaca</i>	S
Milkweed, honeyvine	<i>Ampelamus albidus</i>	S
Muhly, wirestem	<i>Muhlenbergia frondosa</i>	S
Nightshade, silverleaf	<i>Solanum elaeagnifolium</i>	C
Nutsedge, purple	<i>Cyperus rotundus</i>	S
Nutsedge, yellow	<i>Cyperus ferax</i>	S
Orchardgrass	<i>Dactylis glomerata L.</i>	C
Poinsettia, wild	<i>Euphorbia heterophylla L.</i>	C
Pokeweed	<i>Phytolaccaceae</i>	C
Quackgrass	<i>Agropyron repens</i>	S
Sowthistle, perennial	<i>Sonchus arvensis L.</i>	C
Thistle, bull	<i>Cirsium vulgare</i>	C
Thistle, Canada	<i>Cirsium arvense</i>	C
Timothy	<i>Phleum pretense L.</i>	S
Wormwood, biennial	<i>Artemisia biennis</i>	S

### APPLICATION AND MIXING PROCEDURES

**Uniform, thorough spray coverage is important to achieve consistent weed control.**

**Ground Application:**

- Refer to the **Rate Tables** for proper application rates.
- Apply early, when weeds are small.
- Apply Glufosinate 280 SL broadcast in a minimum of 15.0 gallons of water per acre. Increase to 20 gallons of water per acre if dense weed canopy exists.
- Apply at ground speed of less than 15 mph to attain adequate coverage.
- See the **SPRAY DRIFT MANAGEMENT** section of this label for additional information on proper application of Glufosinate 280 SL.

**Aerial Application:**

- Refer to the **Rate Tables** for proper application rates.
- Apply early, when weeds are small.
- Apply Glufosinate 280 SL by air in a minimum of 10.0 gallons of water per acre.
- See the **SPRAY DRIFT MANAGEMENT** section of this label for additional information on proper application of Glufosinate 280 SL.

### **Application and Mixing Restrictions:**

- **Do not use flood jet nozzles, controlled droplet application equipment, or air-assisted spray equipment.**
- **Do not** apply when winds are gusty, or when conditions will favor movement of spray particles off the desired spray target.

### **Compatibility Testing:**

If Glufosinate 280 SL is to be mixed with other pesticides, test the compatibility of the intended tank mixture prior to mixing the products in the spray tank. The following procedure assumes a spray volume of 25.0 gallons per acre. For other spray volumes, adjust the amount of the water used accordingly. Check compatibility as follows:

1. Place 1.0 pint of water from the source that will be used to prepare the spray solution in a clear 1.0 quart jar.
2. For each pound of a dry tank mix partner to be applied per acre, add 1.5 teaspoons to the jar.
3. For each 16.0 fluid ounces of a liquid tank mix partner to be applied per acre, add 0.5 teaspoon to the jar.
4. For each 16.0 fluid ounces of Glufosinate 280 SL to be applied per acre, add 0.5 teaspoon to the jar.
5. After adding all the ingredients, place a lid on the jar and tighten. Invert 10 times to mix.
6. Let the mixture stand for 15 minutes, and evaluate the solution for uniformity and stability. Look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. If the tank mix partners are not compatible, do not use the mixture in a spray tank.
7. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **STORAGE AND DISPOSAL** section of this label.

## **MIXING INSTRUCTIONS**

**Tank Mix Instructions:** Glufosinate 280 SL may be applied in tank mix combinations with other products provided these other products are labeled for the timing and method of application for the crop to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. Glufosinate 280 SL cannot be mixed with any product containing a label prohibition against such mixing. Refer to the specific crop section for rates and other restrictions.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Glufosinate 280 SL must be applied with properly calibrated and clean equipment. Glufosinate 280 SL is formulated to mix readily in water.

Prior to adding Glufosinate 280 SL to the spray tank, ensure that the spray tank is thoroughly clean, particularly if a herbicide with the potential to injure crops was previously used (see **Cleaning Instructions**).

Mix Glufosinate 280 SL with water to make a finished spray solution as follows:

1. Properly calibrated and clean equipment
2. Fill the spray tank half full with water.
3. Start agitation.
4. If mixing with a flowable/wettable powder tank mix partner, prepare a slurry of the proper amount of the product in a small amount of water. Add the slurry to the spray tank.
5. Add the appropriate amount of ammonium sulfate (AMS) to the spray tank.
6. If mixing with a liquid tank mix partner, add the liquid mix partner next.
7. Complete filling the spray tank with water before adding Glufosinate 280 SL, as foaming may occur.
8. Add the proper amount of Glufosinate 280 SL and continue agitation.
9. If foaming occurs, use a silicone-based antifoam agent.

Ensure that all spray system lines including pipes, booms, etc. have the correct concentration of spray solution by flushing out the spray system lines before starting the crop application.

If tank mix partners are added, maintain good agitation at all times until contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed. Keep bypass line on or near bottom of tank to minimize foaming. Screen size in nozzles or line strainers must be 50 mesh or larger.

### **Cleaning Instructions:**

Before using Glufosinate 280 SL, thoroughly clean bulk storage tank, refillable tank, nurse tanks, spray tank, lines, and filter, particularly if a herbicide with the potential to injure crops was previously used. Thoroughly rinse equipment using a commercial tank cleaner and as instructed on the prior herbicide label.

After using Glufosinate 280 SL, triple rinse the spray equipment and clean with a commercial tank cleaner before using the equipment for crops not containing LibertyLink trait. Make sure any rinsate or foam is thoroughly removed from spray tank and boom. Rinsate may be disposed following the pesticide disposal directions on this label.

## SPRAY DRIFT MANAGEMENT

Spray drift may result in injury to non-target crops or vegetation. AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.
- For all non-aerial applications, wind speed must be measured adjacent to the application site, on the upwind side, immediately prior to application.

### MANDATORY SPRAY DRIFT MITIGATION

- When applying to crops via aerial application equipment, the spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip or rotor blade vortices. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- When applying to crops via aerial application equipment, applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.
- For aerial applications, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.
- For ground applications and aerial applications, select nozzle and pressure that deliver medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.
- Spray at the appropriate boom height based on nozzle selection and nozzle spacing, but do not exceed a boom height of 24 inches above target pest or crop canopy. Set boom to lowest effective height over the target pest or crop canopy based on equipment manufacturer's directions. Automated boom height controllers are recommended with large booms to better maintain optimum nozzle to canopy height. Excessive boom height will increase the potential for spray drift.
- For non-crop vegetation management ground applications, apply with the nozzle height no more than 4 feet above the ground or target vegetation, unless necessitated by the application equipment. Examples would include roadside, railroad, utility rights of way, forestry and other industrial vegetation management applications where safety or natural barriers obstruct application.

### SPRAY DRIFT ADVISORIES

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

### POLLINATOR ADVISORY STATEMENT

This product contains a herbicide. Follow all label directions and precautions to minimize potential off-target exposure in order to prevent effects to non-target plants adjacent to the treated site which may serve as habitat or forage for pollinators.

### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See Wind, Temperature and Humidity, and Temperature Inversions sections of this label.

#### Controlling Droplet Size – Ground Boom

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

#### Controlling Droplet Size – Aircraft

- Number of Nozzles - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations. **AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.**
- Nozzle Type - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- Boom Length - Longer booms increase drift potential. Therefore, a shorter boom length is recommended.
- Application Height - Application more than 10 ft. above the canopy increases the potential for spray drift.

## **BOOM HEIGHT**

Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

## **WIND**

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS.**

Note: Local terrain can influence wind patterns. Every applicator needs to be familiar with local wind patterns and how they affect spray drift.

## **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

## **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

## **APPLICATION DIRECTIONS FOR BURNDOWN USE**

Glufosinate 280 SL may be applied as a **burndown treatment prior to planting or prior to emergence** of any variety of canola, corn, sweet corn<sup>[1]</sup>, cotton, soybean or sugar beet.

[<sup>1</sup> – Not for use in California]

### **Application Timing:**

- Apply to small and actively growing weeds, targeting less than 3-inch weeds in height. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- Warm temperatures, high humidity, and bright sunlight improve the performance of Glufosinate 280 SL.
- Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures.
- For optimum results on lambsquarters, Palmer amaranth and velvetleaf make applications between dawn and 2 hours before sunset.
- Glufosinate 280 SL is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.

### **Application Rates:**

- Apply 29.0 – 43.0 fluid ounces per acre of Glufosinate 280 SL depending on crop, weed species and intention of post application use. Please see application charts below.

### **Adjuvant:**

- Ammonium sulfate (AMS) may be used at 1.5 to 3 pounds per acre. Adjuvant rates are dependent on tank mix partners, temperatures, environmental conditions and potential for leaf burn.
- AMS has shown to improve weed control of difficult-to-control weeds, like lambsquarters and velvetleaf, under difficult environmental conditions (low relative humidity) or hard water.

### **Surfactants / Crop Oils:**

- The use of surfactants may be included. Please refer to the surfactant label for more detailed information.

**Table 4. APPLICATION DIRECTIONS FOR CONVENTIONAL AND NON-LIBERTYLINK CROPS**

<b>Crop</b>	<b>Burndown</b>	<b>In Season Applications</b>	<b>Minimum Re-treatment Interval</b>	<b>Annual Max</b>
Canola, Soybean, Sweet Corn, Field Corn	29 - 43 fl oz/A (0.53 – 0.79 lbs ai/A)	None	N/A	43 fl oz/A (0.79 lbs ai/A)
Sugar beets	29 - 36 fl oz/A (0.53 – 0.66 lbs ai/A)	None	N/A	36 fl oz/A (0.66 lbs ai/A)
Cotton Use Pattern 1	29 fl oz/A (0.53 lbs ai/A)	1 to 2 applications at 29 fl oz/A* (0.53 lbs ai/A)	10 days	87 fl oz/A (1.59 lbs ai/A)
Cotton Use Pattern 2	30-43 fl oz/A (0.55 – 0.79 lbs ai/A)	1 application at 29 fl oz/A* (0.53 lbs ai/A)	10 days	72 fl oz/A (1.32 lbs ai/A)

\* Cotton containing the LibertyLink trait OR with hooded sprayer for all varieties (see **COTTON** use directions).

**Restrictions for Use on Conventional and Non-LibertyLink crops:**

- **Canola, Soybean, Sweet Corn, and Field Corn:**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 43 fluid ounces per acre (0.79 lbs ai/A) of Glufosinate 280 SL per burndown application.
  - **DO NOT** make in-season (post emergent) applications of Glufosinate 280 SL.
  - **DO NOT** apply more than 43 fluid ounces per acre (0.79 lbs ai/A) of Glufosinate 280 SL per year.
- **Sugar Beets**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 36 fluid ounces per acre (0.66 lbs ai/A) of Glufosinate 280 SL per burndown application.
  - **DO NOT** make in-season (post emergent) applications of Glufosinate 280 SL.
  - **DO NOT** apply more than 36 fluid ounces per acre (0.66 lbs ai/A) of Glufosinate 280 SL per year.
- **Cotton (Use Pattern 1):**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 29 fluid ounces per acre (0.53 lb ai/A) of Glufosinate 280 SL per burndown application.
  - **DO NOT** exceed a total of 3 applications of Glufosinate 280 SL, including all application timings, per year. If a burndown treatment of 29 fluid ounces per acre (0.53 lbs ai/A) of Glufosinate 280 SL was applied, only 2 in-season (post emergent) applications at 29 fluid ounces per acre may be applied. Applications must be made a minimum of 10 days apart.
  - **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of Glufosinate 280 SL, including all application timings, per year.
  - If intending to apply in-season (post emergent) application(s), see additional use instructions and restrictions in the **APPLICATION DIRECTIONS FOR USE ON COTTON** section of this label.
- **Cotton (Use Pattern 2):**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 43 fluid ounces per acre (0.79 lbs ai/A) of Glufosinate 280 SL per burndown application.
  - **DO NOT** exceed a total of 2 applications of Glufosinate 280 SL, including all application timings, per year. If a burndown treatment of Glufosinate 280 SL was applied at a rate greater than 29 fluid ounces per acre (0.53 lbs ai/A), only 1 in-season (post emergent) application at 29 fluid ounces per acre may be applied. Applications must be made a minimum of 10 days apart.
  - **DO NOT** apply more than 72 fluid ounces per acre (1.32 lbs ai/A) of Glufosinate 280 SL, including all application timings, per year.
  - If intending to apply an in-season (post emergent) application, see additional use instructions and restrictions in the **APPLICATION DIRECTIONS FOR USE ON COTTON** section of this label.

**Table 5. APPLICATION DIRECTIONS FOR CROPS CONTAINING THE LIBERTYLINK TRAIT**

<b>Crop</b>	<b>Burndown</b>	<b>In Season Applications on Crops Containing the LibertyLink® (LL) Trait</b>	<b>Minimum Re-treatment Interval</b>	<b>Annual Max</b>
LL Soybean	29 - 43 fl oz/A (0.53 – 0.79 lbs ai/A)	1 to 2 applications at 29 - 43 fl oz/A (0.53 – 0.79 lbs ai/A)	5 days	87 fl oz/A (1.59 lbs ai/A)
LL Field Corn	29 - 43 fl oz/A (0.53 – 0.79 lbs ai/A)	1 to 2 applications at 29 - 43 fl oz/A (0.53 – 0.79 lbs ai/A)	7 days	87 fl oz/A (1.59 lbs ai/A)
LL Sweet Corn	22 fl oz/A (0.40 lbs ai/A)	<b>If a burndown treatment is applied:</b> None	N/A	22 fl oz/A (0.40 lbs ai/A)
		<b>If no burndown treatment is applied:</b> 1 to 2 applications at 22 fl oz/A (0.4 lbs ai/A)	7 days	44 fl oz/A (0.8 lbs ai/A)
LL Canola	29 - 43 fl oz/A (0.53 – 0.79 lbs ai/A)	1 to 2 applications at 22 - 29 fl oz/A (0.40 lbs ai/A - 0.53 lbs ai/A)	7 days	87 fl oz/A (1.59 lbs ai/A)
LL Cotton Use Pattern 1	29 fl oz/A (0.53 lbs ai/A)	1 to 2 applications at 29 fl oz/A* (0.53 lbs ai/A)	10 days	87 fl oz/A (1.59 lbs ai/A)
LL Cotton Use Pattern 2	30 - 43 fl oz/A (0.55 – 0.79 lbs ai/A)	1 application at 29 fl oz/A* (0.53 lbs ai/A)	10 days	72 fl oz/A (1.32 lbs ai/A)
[LL Sugar beets]	30 - 36 fl oz/A (0.55 – 0.66 lbs ai/A)	1 application at 30 fl oz/A (0.55 lbs ai/A)	10 days	60 fl oz/A (1.1 lbs ai/A)]

\* Cotton containing the LibertyLink trait OR with hooded sprayer for all varieties (see **COTTON** use directions).

**Restrictions for Use on Crops Containing the LibertyLink Trait:**

- **LL Soybeans:**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 43 fluid ounces per acre (0.79 lbs ai/A) of Glufosinate 280 SL per burndown application.
  - **DO NOT** exceed a total of 3 applications of Glufosinate 280 SL, including all application timings (1 burndown application and up to 2 in-season [post emergent] applications), per year. Applications must be made a minimum of 5 days apart.
  - **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of Glufosinate 280 SL, including all application timings, per year.
  - If intending to apply in-season (post emergent) application(s), see additional use instructions and restrictions in the **APPLICATION DIRECTIONS FOR USE ON SOYBEANS CONTAINING THE LIBERTYLINK TRAIT** section of this label.
- **LL Field Corn:**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 43 fluid ounces per acre (0.79 lbs ai/A) of Glufosinate 280 SL per burndown application.
  - **DO NOT** exceed a total of 3 applications of Glufosinate 280 SL, including all application timings (1 burndown application and up to 2 in-season [post emergent] applications), per year. Applications must be made a minimum of 7 days apart.
  - **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of Glufosinate 280 SL, including all application timings, per year.
  - If intending to apply in-season (post emergent) application(s), see additional use instructions and restrictions in the **APPLICATION DIRECTIONS FOR USE ON FIELD CORN AND SILAGE CORN CONTAINING THE LIBERTYLINK TRAIT** section of this label.
- **LL Sweet Corn:**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 22 fluid ounces per acre (0.40 lbs ai/A) of Glufosinate 280 SL per burndown application.
  - **DO NOT** make in-season (post emergent) applications to sweet corn if Glufosinate 280 SL was used in a burndown application.
  - If a burndown treatment was made, **DO NOT** apply more than 22 fluid ounces per acre (0.40 lbs ai/A) of Glufosinate 280 SL per year.
  - If no burndown treatment is intended, see the **APPLICATION DIRECTIONS FOR USE ON SWEET CORN CONTAINING THE LIBERTYLINK TRAIT** section of this label for in-season (post emergent) use instructions and restrictions.

- **Canola:**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 43 fluid ounces (0.79 lbs ai/A) per acre of Glufosinate 280 SL per burndown application.
  - **DO NOT** exceed a total of 3 applications of Glufosinate 280 SL, including all application timings (1 burndown application and up to 2 in-season [post emergent] applications), per year. Applications must be made a minimum of 7 days apart.
  - **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of Glufosinate 280 SL, including all application timings, per year.
  - If intending to apply in-season (post emergent) application(s), see additional use instructions and restrictions in the **APPLICATION DIRECTIONS FOR USE ON CANOLA CONTAINING THE LIBERTYLINK TRAIT** section of this label.
- **Cotton (Use Pattern 1):**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 29 fluid ounces per acre (0.53 lb ai/A) of Glufosinate 280 SL per burndown application.
  - **DO NOT** exceed a total of 3 applications of Glufosinate 280 SL, including all application timings, per year. If a burndown treatment of 29 fluid ounces per acre (0.53 lbs ai/A) of Glufosinate 280 SL was applied, only 2 in-season (post emergent) applications at 29 fluid ounces per acre may be applied. Applications must be made a minimum of 10 days apart.
  - **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of Glufosinate 280 SL, including all application timings, per year.
  - If intending to apply in-season (post emergent) application(s), see additional use instructions and restrictions in the **APPLICATION DIRECTIONS FOR USE ON COTTON** section of this label.
- **Cotton (Use Pattern 2):**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 43 fluid ounces per acre (0.79 lbs ai/A) of Glufosinate 280 SL per burndown application.
  - **DO NOT** exceed a total of 2 applications of Glufosinate 280 SL, including all application timings, per year. If a burndown treatment of Glufosinate 280 SL was applied at a rate greater than 29 fluid ounces per acre (0.53 lbs ai/A), only 1 in-season (post emergent) application at 29 fl oz/A may be applied. Applications must be made a minimum of 10 days apart.
  - **DO NOT** apply more than 72 fluid ounces per acre (1.32 lbs ai/A) of Glufosinate 280 SL, including all application timings, per year.
  - If intending to apply an in-season (post emergent) application, see additional use instructions and restrictions in the **APPLICATION DIRECTIONS FOR USE ON COTTON** section of this label.
- **[Sugar beets:**
  - **DO NOT** make more than 1 burndown application of Glufosinate 280 SL per year.
  - **DO NOT** apply more than 36 fluid ounces (0.66 lbs ai/A) per acre of Glufosinate 280 SL per burndown application.
  - **DO NOT** apply more than 60 fluid ounces (1.1 lbs ai/A) per acre of Glufosinate 280 SL, including all application timings, per year.
  - **DO NOT** exceed a total of 2 applications of Glufosinate 280 SL, including all application timings, per year. If a burndown treatment of Glufosinate 280 SL was made up to 1 in-season (post emergent) application may be made. Applications must be made a minimum of 10 days apart.
  - If intending to apply an in-season (post emergent) application, see additional use instructions and restrictions in the **APPLICATION DIRECTIONS FOR USE ON SUGAR BEETS CONTAINING THE LIBERTYLINK TRAIT** section of this label.]

## **[APPLICATION DIRECTIONS FOR USE ON SUGAR BEETS CONTAINING THE LIBERTYLINK TRAIT]**

**[Not for use in California.]**

Apply Glufosinate 280 SL only to sugar beets containing LibertyLink trait. Glufosinate 280 SL is a contact herbicide and requires uniform, thorough spray coverage to achieve optimum weed control.

### **Application Timing:**

- Apply to small and actively growing weeds, targeting less than 3-inch weeds in height. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.
- Applications of Glufosinate 280 SL on sugar beets containing the LibertyLink trait may be made from the cotyledon stage up to the 10-leaf stage of the sugar beet.
- Glufosinate 280 SL is a foliar-active material with little or no soil-residual activity.
- Glufosinate 280 SL is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.
- For best result:
  - On lambsquarters, Palmer amaranth and velvetleaf control, make applications of Glufosinate 280 SL between dawn and 2 hours before sunset.
  - Warm temperatures, high humidity, and bright sunlight improve the performance of Glufosinate 280 SL.

#### Application Rates:

- Apply 30 fluid ounces per (0.55 lbs ai/A) depending on weed species, size and density. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- If a second application is needed, make the second application a minimum of 10 days after the first application.
- The maximum annual rate of Glufosinate 280 SL on sugar beets is 60.0 fluid ounces per acre (1.1 lbs ai/A).

#### Spray Volume:

- Use a minimum spray volume of 15 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present).
- In difficult to control situations use a minimum spray volume of 20 gallons per acre.

#### Adjuvants:

- Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) and potential for leaf burn.
- AMS has shown to improve weed control of difficult-to-control weeds, like lambsquarters and velvetleaf, under difficult environmental conditions (such as low relative humidity) or hard water.
- The use of an anti-foam agent is advised.

#### Surfactants / Oils:

- The use of additional surfactants or crop oils in tank mixes with Glufosinate 280 SL may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

#### Nozzle Spray Quality:

- Use medium to coarse nozzles.
- Glufosinate 280 SL is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.
- See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

#### Restrictions to the Directions For Use on Sugar Beets Containing the LibertyLink Trait:

- **DO NOT** apply more than 30 fluid ounces per acre (0.55 lbs ai/A) of Glufosinate 280 SL in a single in-season (post emergent) application.
- **DO NOT** apply more than 2 in-season (post emergent) applications of Glufosinate 280 SL per year.
- **DO NOT** exceed a total of 2 applications, including all application timings, of Glufosinate 280 SL per year. If a burndown treatment was made up to 1 in-season (post emergent) application of Glufosinate 280 SL may be made.
- Applications must be made a minimum of 10 days apart.
- **DO NOT** apply more than 60.0 fluid ounces per acre (1.1 lbs ai/A), of Glufosinate 280 SL on sugar beets, including all application timings, per year.
- **Pre-harvest Interval (PHI): DO NOT** apply Glufosinate 280 SL within 60 days of harvesting sugar beets.
- **DO NOT** plant rotation crops in a field treated with Glufosinate 280 SL within 120 days after the last application of Glufosinate 280 SL with the exception of wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale which may be planted 70 days after the last application of Glufosinate 280 SL. Corn, soybeans, canola, and sugar beets containing the LibertyLink trait may be planted at any time.
- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** apply Glufosinate 280 SL if sugar beets show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply Glufosinate 280 SL through any type of irrigation system.

#### **APPLICATION DIRECTIONS FOR USE ON CANOLA CONTAINING THE LIBERTYLINK TRAIT**

Apply Glufosinate 280 SL only to canola containing the LibertyLink trait. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

#### Application Timing:

- Apply to small and actively growing weeds, targeting less than 3-inch weeds in height. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.
- Applications of Glufosinate 280 SL on canola containing the LibertyLink trait may be made from the cotyledon stage up to the early bolt stage of the canola. Slight discoloration of the canola may be visible after application. This effect is temporary and will not influence crop growth, maturity, or yield.
- Glufosinate 280 SL is a foliar-active material with little or no soil-residual activity.
- Glufosinate 280 SL is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.
- For best result:

- On lambsquarters, Palmer amaranth and velvetleaf control, make applications of Glufosinate 280 SL between dawn and 2 hours before sunset.
- Warm temperatures, high humidity, and bright sunlight improve the performance of Glufosinate 280 SL.

#### Application Rates:

- Apply Glufosinate 280 SL at 22.0 to 29.0 fluid ounces per acre (0.4 to 0.53 lbs ai/A) per application, depending on weed species, size and density. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- If a second application is needed, make the second application a minimum of 7 days after the first application.
- The maximum annual rate of Glufosinate 280 SL on canola is 87.0 fluid ounces per acre (1.59 lbs ai/A).

#### Spray Volume:

- Use a minimum spray volume of 15 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present).
- In difficult to control situations use a minimum spray volume of 20 gallons per acre.

#### Application Rates with Tank Mix Partners:

- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Tank mix partners advised to enhance grass control contain active ingredients including quizalofop p-ethyl, sethoxydim, and clethodim.
- Apply Glufosinate 280 SL at 22.0 to 29.0 fluid ounces per acre (0.4 to 0.53 lbs ai/A) per application, depending on weed species, size and density. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- If a second application is needed, make the second application a minimum of 7 days after the first application.
- No additional surfactant is needed with any tank mix partner.
- Do not exceed any labeled dosage rates.
- Do not mix Glufosinate 280 SL mix with any product containing a label prohibition against such mixing.

#### Adjuvants:

- Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) and potential for leaf burn.
- AMS has shown to improve weed control of difficult-to-control weeds, like lambsquarters and velvetleaf, under difficult environmental conditions (such as low relative humidity) or hard water.
- The use of an anti-foam agent is advised.

#### Surfactants / Oils:

- The use of additional surfactants or crop oils in tank mixes with Glufosinate 280 SL may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

#### Nozzle Spray Quality:

- Use medium to coarse nozzles.
- Glufosinate 280 SL is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.
- See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

#### Restrictions to the Directions For Use on Canola Containing the LibertyLink Trait:

- **DO NOT** use on canola containing the LibertyLink trait in the states of Alabama, Delaware, Georgia, Kentucky, Maryland, New Jersey, North Carolina, South Carolina, Tennessee, Virginia and West Virginia.
- **DO NOT** apply more than 29 fluid ounces per acre (0.53 lb ai/A) of Glufosinate 280 SL in a single in-season (post emergent) application.
- **DO NOT** apply more than 2 in-season (post emergent) applications of Glufosinate 280 SL per year.
- **DO NOT** exceed a total of 3 applications, including all application timings (one burndown application and up to 2 in-season [post emergent] applications), of Glufosinate 280 SL per year.
- Applications must be made a minimum of 7 days apart.
- **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A), of Glufosinate 280 SL on canola, including all application timings, per year.
- **Pre-harvest Interval (PHI): DO NOT** apply Glufosinate 280 SL within 65 days of harvesting canola.
- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** apply Glufosinate 280 SL if canola shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply Glufosinate 280 SL through any type of irrigation system.
- Refer to the **ROTATIONAL CROP RESTRICTIONS** section under the **PRODUCT INFORMATION** heading of this label for the appropriate rotational crop plant back intervals.

## APPLICATION RATE AND TIMING FOR CANOLA CONTAINING LIBERTYLINK TRAIT SEED PROPAGATION

[Not for use in California]

Up to 3 applications of Glufosinate 280 SL at up to 29.0 fluid ounces per acre (0.53 lbs ai/A) per application may be made to canola containing the LibertyLink trait for seed propagation. Applications may be made from the cotyledon stage up to the early bolting stage (e.g., BBCH 18-30, between just prior to stem elongation/bolting, 8 or more leaves and beginning of stem elongation, no internodes).

### Restrictions to the Directions for Canola Containing the LibertyLink Trait for Seed Propagation:

- **DO NOT** apply more than 3 applications of Glufosinate 280 SL at up to 29.0 fluid ounces per acre (0.53 lbs ai/A) per application per year. Sequential applications must be made at least 7 days apart.
- **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of Glufosinate 280 SL per year.
- **Pre-harvest Interval (PHI): DO NOT** apply Glufosinate 280 SL beyond the early bolting stage or within 65 days of harvesting canola seed.
- **DO NOT** use treated canola seed for food, feed or oil purposes.
- **DO NOT** apply Glufosinate 280 SL if canola shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply this product through any type of irrigation system.

## APPLICATION DIRECTIONS FOR USE ON SWEET CORN CONTAINING THE LIBERTYLINK TRAIT

[Not for use in California.]

Apply Glufosinate 280 SL only to sweet corn containing the LibertyLink trait. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

### Application Timing:

- Apply to small and actively growing weeds, targeting less than 3-inch weeds in height. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.
- Applications of Glufosinate 280 SL on sweet corn may be made from emergence until the V-6 stage of growth.
- Glufosinate 280 SL is a foliar-active material with little or no soil-residual activity.
- Glufosinate 280 SL is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.
- For best result:
  - On lambsquarters, Palmer amaranth and velvetleaf control, make applications of Glufosinate 280 SL between dawn and 2 hours before sunset.
  - Warm temperatures, high humidity, and bright sunlight improve the performance of Glufosinate 280 SL.

### Application Rate:

- Apply Glufosinate 280 SL at 22.0 fluid ounces per acre (0.4 lbs ai/A), depending on weed species, size and density. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- If a second application is needed, make the second application a minimum of 7 days after the first application.
- The maximum annual rate of Glufosinate 280 SL on sweet corn is 44.0 fluid ounces per acre (0.8 lbs ai/A).

### Spray Volume:

- Use a minimum spray volume of 15 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present).
- In difficult to control situations use a minimum spray volume of 20 gallons per acre.

### Application Rates with Tank Mix Partners:

- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Tank mixes may aid in the performance of Glufosinate 280 SL. Advisable tank mix partners contain active ingredients including atrazine, tembotrione, thiencazabone-methyl, and dicamba, DGA salt.
- Apply Glufosinate 280 SL at 22.0 fluid ounces per acre (0.4 lbs ai/A) per application, depending on weed species, size and density. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- If a second application is needed, make the second application a minimum of 7 days after the first application.
- No additional surfactant is needed with any tank mix partner.
- Do not exceed any labeled dosage rates.
- Do not mix Glufosinate 280 SL mix with any product containing a label prohibition against such mixing.

**Adjuvants:**

- Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) and potential for leaf burn.
- AMS has shown to improve weed control of difficult-to-control weeds, like lambsquarters and velvetleaf, under difficult environmental conditions (such as low relative humidity) or hard water.
- The use of an anti-foam agent is advised.

**Surfactants / Oils:**

- The use of additional surfactants or crop oils in tank mixes with Glufosinate 280 SL may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

**Nozzle Spray Quality:**

- Use medium to coarse nozzles.
- Glufosinate 280 SL is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.
- See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

**Restrictions to the Directions For Use on Sweet Corn Containing the LibertyLink Trait:**

- **Pre-harvest Interval (PHI): DO NOT** apply Glufosinate 280 SL within 50 days of harvesting sweet corn ears and within 55 days of harvesting stover.
- If Glufosinate 280 SL was used in a burndown application, **DO NOT** make in-season (post emergent) applications.
- **DO NOT** apply more than 22 fluid ounces per acre (0.4 lbs ai/A) of Glufosinate 280 SL in a single in-season (post emergent), application.
- **DO NOT** apply more than 2 in-season (post emergent) applications of Glufosinate 280 SL to sweet corn per year. Sequential applications must be made at least 7 days apart.
- **DO NOT** apply more than 44.0 fluid ounces per acre (0.8 lbs ai/A) of Glufosinate 280 SL on sweet corn per year.
- **DO NOT** use nitrogen solutions as spray carriers.
- **DO NOT** apply Glufosinate 280 SL if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.)
- **DO NOT** apply Glufosinate 280 SL through any type of irrigation system.
- Refer to the **ROTATIONAL CROP RESTRICTIONS** section under the **PRODUCT INFORMATION** heading of this label for the appropriate rotational crop plant back intervals.

**APPLICATION DIRECTIONS FOR USE ON FIELD CORN AND SILAGE CORN CONTAINING THE LIBERTYLINK TRAIT**

Apply Glufosinate 280 SL only to corn containing the LibertyLink trait. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

**Application Timing:**

- Apply to small and actively growing weeds, targeting less than 3-inch weeds in height. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.
- Applications of Glufosinate 280 SL on corn may be made from emergence until the V-6 stage of growth.
- Glufosinate 280 SL is a foliar-active material with little or no soil-residual activity.
- Glufosinate 280 SL is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.
- For best result:
  - On lambsquarters, Palmer amaranth and velvetleaf control, make applications of Glufosinate 280 SL between dawn and 2 hours before sunset.
  - Warm temperatures, high humidity, and bright sunlight improve the performance of Glufosinate 280 SL.

**Application Rate:**

- Apply Glufosinate 280 SL at 29 – 43 fluid ounces per acre (0.53 – 0.79 lbs ai/A), depending on weed species, size and density. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- If a second application is needed, make the second application at 29 - 43 fluid ounces per acre (0.53 - 0.79 lbs ai/A), a minimum of 7 days after the first application.
- The maximum annual rate of Glufosinate 280 SL on sugar beets is 87.0 fluid ounces per acre (1.59 lbs ai/A).

**Spray Volume:**

- Use a minimum spray volume of 15 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present).
- In difficult to control situations use a minimum spray volume of 20 gallons per acre.

#### Application Rates with Tank Mix Partners:

- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Tank mixes may aid in the performance of Glufosinate 280 SL. Advisable tank mix partners contain active ingredients including atrazine, tembotrione, thiencazzone-methyl, and dicamba, DGA salt.
- Apply Glufosinate 280 SL at 29.0 – 43.0 fluid ounces per acre (0.53 – 0.79 lbs ai/A), depending on weed species, size and density. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- If a second application is needed, make the second application a minimum of 7 days after the first application.
- No additional surfactant is needed with any tank mix partner.
- Do not exceed any labeled dosage rates.
- Do not mix Glufosinate 280 SL with any product containing a label prohibition against such mixing.

#### Adjuvants:

- Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) and potential for leaf burn.
- AMS has shown to improve weed control of difficult-to-control weeds, like lambsquarters and velvetleaf, under difficult environmental conditions (such as low relative humidity) or hard water.
- The use of an anti-foam agent is advised.

#### Surfactants / Oils:

- The use of additional surfactants or crop oils in tank mixes with Glufosinate 280 SL may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

#### Nozzle Spray Quality:

- Use medium to coarse nozzles.
- Glufosinate 280 SL is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.
- See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

#### Restrictions to the Directions For Use on Field Corn and Corn Silage Containing LibertyLink Trait:

- **Pre-harvest Interval (PHI): DO NOT** apply Glufosinate 280 SL within 60 days of harvesting corn forage and within 70 days of harvesting corn grain and corn fodder.
- **DO NOT** apply more than 43 fluid ounces per acre (0.79 lbs ai/A) Glufosinate 280 SL in a single in-season (post emergent), application.
- **DO NOT** apply more than 2 in-season (post emergent) applications of Glufosinate 280 SL per year.
- **DO NOT** exceed a total of 3 applications, including all application timings (1 burndown application and up to 2 in-season [post emergent] applications), of Glufosinate 280 SL on corn per year.
- Applications must be made a minimum of 7 days apart.
- **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of Glufosinate 280 SL on corn, including all application timings, per year.
- **DO NOT** use nitrogen solutions as spray carriers.
- **DO NOT** apply Glufosinate 280 SL if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.)
- **DO NOT** apply Glufosinate 280 SL through any type of irrigation system.
- Refer to the **ROTATIONAL CROP RESTRICTIONS** section under the **PRODUCT INFORMATION** heading of this label for the appropriate rotational crop plant back intervals.

### APPLICATION DIRECTIONS FOR USE ON COTTON

Uniform, thorough spray coverage is necessary to achieve consistent weed control. Glufosinate 280 SL may be applied as a broadcast, over-the-top, post-emergence spray or as a directed spray only to cotton containing the LibertyLink trait. Application of Glufosinate 280 SL to cotton varieties not containing the LibertyLink trait requires the use of hooded spray equipment designed to minimize exposure of the spray to the cotton stand. See **Hooded Sprayer Application Instructions** in this section of the label for further information.

#### Application Timing:

- Apply to small and actively growing weeds, targeting less than 3-inch weeds in height. For additional information on refer to the **WEED CONTROL FOR ROW CROPS** section.
- Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.
- Glufosinate 280 SL is a foliar-active material with little or no soil-residual activity.
- Glufosinate 280 SL is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.
- For best result:

- On lambsquarters, Palmer amaranth and velvetleaf control, make applications of Glufosinate 280 SL between dawn and 2 hours before sunset.
- Warm temperatures, high humidity, and bright sunlight improve the performance of Glufosinate 280 SL.
- Apply Glufosinate 280 SL to cotton from emergence up to the early bloom stage. See **Restrictions to the Directions for use on Cotton** below for additional information.

**Application Rates:**

**Option 1 (3 post applications)**

- Apply 29 fluid ounces per acre (0.53 lbs ai/A) per application depending on weed species, size and density. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- If required a second application of 29 fluid ounces per acre (0.53 lbs ai/A) can be applied, followed by a third application of 29 fluid ounces per acre (0.53 lbs ai/A).
- The sequential applications must be made a minimum of 10 days up to 14 days after each other.
- The maximum annual rate of Glufosinate 280 SL on cotton is 87.0 fluid ounces per acre (1.59 lbs ai/A).

**Option 2 (2 post applications)**

- Apply 30 - 43 fluid ounces per acre (0.55 – 0.79 lbs ai/A) per application depending on weed species, size and density. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- If required a second application of 29 fluid ounces per acre (0.53 lbs ai/A) can be applied.
- The second application must be made a minimum of 10 days up to 14 days after the first application.
- The maximum annual rate of Glufosinate 280 SL on cotton is 72 fluid ounces per acre (1.32 lbs ai/A).

Use Pattern	1 <sup>st</sup> Application	2 <sup>nd</sup> Application Minimum 10 Days Up to 14 Days After 1 <sup>st</sup> Application	3 <sup>rd</sup> Application Minimum 10 Days Up to 14 Days After 2 <sup>nd</sup> Application	Annual Maximum
Option 1	29 fl oz/A (0.53 lbs ai/A)	29 fl oz/A (0.53 lbs ai/A)	29 fl oz/A (0.53 lbs ai/A)	87 fl oz/A (1.59 lbs ai/A)
Option 2	30-43 fl oz/A (0.55 – 0.79 lbs ai/A)	29 fl oz/A (0.53 lbs ai/A)	None	72 fl oz/A (1.32 lbs ai/A)

**Spray Volume:**

- Use a minimum spray volume of 15 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present).
- In difficult to control situations use a minimum spray volume of 20 gallons per acre.

**Tank Mixing:**

- It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Certain herbicide tank mixes may aid in the performance of Glufosinate 280 SL.
- Glufosinate 280 SL may be applied in tank mix combinations with other products provided these other products are labeled for the timing and method of application for the cotton to be treated.
- No label dosage rates may be exceeded.
- Glufosinate 280 SL cannot be mixed with any product containing a label prohibition against such mixing.

**Adjuvants:**

- Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) and potential for leaf burn.
- AMS has shown to improve weed control of difficult-to-control weeds, like lambsquarters and velvetleaf, under difficult environmental conditions (such as low relative humidity) or hard water.
- The use of an anti-foam agent is advised.

**Surfactants / Oils:**

- The use of additional surfactants or crop oils in tank mixes with Glufosinate 280 SL may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

**Nozzle Spray Quality:**

- Use medium to coarse nozzles.
- Glufosinate 280 SL is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.
- See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

### Hooded Sprayer Application Instructions:

Application of Glufosinate 280 SL to cotton varieties not containing the LibertyLink trait requires the use of hooded spray equipment designed to minimize exposure of the spray to the cotton stand. A hooded sprayer directs the spray onto weeds, while shielding the cotton stand from contact. Use nozzles that provide uniform coverage within the treated area. Keep hoods on these sprayers adjusted to protect desirable vegetation. Extreme care must be exercised to avoid exposure of the desirable vegetation to the spray.

With a hooded sprayer, the spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground. If the hoods are raised, spray particles may escape and come into contact with the cotton, causing damage or destruction of the crop.

Herbicide rates and spray volume instructions are presented as broadcast equivalents and must be reduced in proportion to the area actually treated. Use the following formulas to calculate the correct rate and volume per planted (field) acre:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast RATE per acre} = \text{Amount of banded product needed per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast spray VOLUME per acre} = \text{Banded spray volume needed per acre}$$

### Post-Harvest – Fall Burndown:

Glufosinate 280 SL may be applied as a post-harvest burndown treatment to fields (after cotton harvest). Up to 43.0 fluid ounces per acre (0.79 lb ai/A) of Glufosinate 280 SL may be applied in a single application to control larger weeds growing in the crop at the time of harvest. If more than 29.0 fluid ounces per acre (0.53 lb ai/A) is used in a single application, the annual total may not exceed 72.0 fluid ounces per acre (1.32 lb ai/A), including all application timings. Refer to the **ROTATIONAL CROP RESTRICTIONS** section of this label for appropriate rotational crop information.

### Restrictions to the Directions For Use on Cotton

- **DO NOT** apply Glufosinate 280 SL to cotton **containing the LibertyLink** trait in Florida, South of Tampa (Florida Route 60), or in Hawaii, except for test plots or breeding nurseries.
- **Pre-harvest Interval (PHI): DO NOT** apply Glufosinate 280 SL within 70 days prior to cotton harvest.
- Up to 3 applications, including all application timings, of Glufosinate 280 SL may be made to cotton per year at a maximum application rate of 29.0 fluid ounces per acre (0.53 lb ai/A). Applications must be made a minimum of 10 days apart. **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of Glufosinate 280 SL, including all application timings, to cotton per year under this application scenario.
- If environmental conditions prevent timely applications resulting in large weeds or heavy infestations, a single application of Glufosinate 280 SL at up to 43.0 fluid ounces per acre (0.79 lb ai/A) may be made to cotton. **DO NOT** apply more than 43.0 fluid ounces (0.79 lb ai/A) of Glufosinate 280 SL in a single application under this use scenario. If a single application greater than 29.0 fluid ounces (0.53 lb ai/A) is made, a subsequent application not to exceed 29.0 fluid ounces (0.53 lb ai/A) may be made to cotton. **DO NOT** exceed a total of 2 applications of Glufosinate 280 SL, including all application timings, per year. Applications must be made a minimum of 10 days apart. **DO NOT** apply more than 72.0 fluid ounces per acre (1.32 lbs ai/A) of Glufosinate 280 SL, including all application timings, to cotton per year under this application scenario.
- **DO NOT** apply Glufosinate 280 SL through any type of irrigation system.
- Refer to the **ROTATIONAL CROP RESTRICTIONS** section under the **PRODUCT INFORMATION** heading of this label for the appropriate rotational crop plant back intervals.

### APPLICATION DIRECTIONS FOR USE ON SOYBEANS CONTAINING THE LIBERTYLINK TRAIT

Apply Glufosinate 280 SL only to soybeans containing the LibertyLink trait. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

### Application Timing:

- Apply to small and actively growing weeds, targeting less than 3-inch weeds in height. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.
- Applications of Glufosinate 280 SL on soybeans may be made from emergence up to bloom or R1 growth stage.
- Glufosinate 280 SL is a foliar-active material with little or no soil-residual activity.
- Glufosinate 280 SL is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.
- For best result:

- On lambsquarters, Palmer amaranth and velvetleaf control, make applications of Glufosinate 280 SL between dawn and 2 hours before sunset.
- Warm temperatures, high humidity, and bright sunlight improve the performance of Glufosinate 280 SL.

#### Application Rate:

- Apply Glufosinate 280 SL at 29 – 43 fluid ounces per acre (0.53 – 0.79 lbs ai/A), depending on weed species, size and density. For additional information refer to the **WEED CONTROL FOR ROW CROPS** section.
- If a second application is needed, the second application of 29 - 43 fluid ounces per acre (0.53 – 0.79 lbs ai/A), can be applied up to a yearly maximum of 87.0 fluid ounces per acre (1.59 lbs ai/A).
- Make the second application a minimum of 5 days after the first application.
- The maximum annual rate of Glufosinate 280 SL on soybeans is 87.0 fluid ounces per acre (1.59 lbs ai/A).

Use Pattern Rate Ranges		
1st Application	2nd Application Minimum of 5 Days After 1 <sup>st</sup> Application	Annual Maximum
29.0 to 43.0 fl oz/A (0.53 – 0.79 lbs ai/A)	29.0 to 43.0 fl oz/A (0.53 – 0.79 lbs ai/A)	87.0 fl oz/A (1.59 lbs ai/A)

#### Spray Volume:

- Use a minimum spray volume of 15 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present).
- In difficult to control situations use a minimum spray volume of 20 gallons per acre.

#### Adjuvants:

- Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) and potential for leaf burn.
- AMS has shown to improve weed control of difficult-to-control weeds, like lambsquarters and velvetleaf, under difficult environmental conditions (such as low relative humidity) or hard water.
- The use of an anti-foam agent is advised.

#### Surfactants / Oils:

- The use of additional surfactants or crop oils in tank mixes with Glufosinate 280 SL may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

#### Nozzle Spray Quality:

- Use medium to coarse nozzles.
- Glufosinate 280 SL is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.
- See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

#### Restrictions to the Directions For Use on Soybeans Containing the LibertyLink Trait:

- **Pre-Harvest Interval (PHI): DO NOT** apply Glufosinate 280 SL within 70 days of harvesting soybean seed.
- **DO NOT** apply more than 43.0 fluid ounces per acre (0.79 lbs ai/A) of Glufosinate 280 SL in a single in-season (post emergent) application.
- **DO NOT** apply more than 2 in-season (post emergent) applications of Glufosinate 280 SL per year.
- **DO NOT** exceed a total of 3 applications, including all application timings (one burndown application and up to 2 in-season [post emergent] applications, of Glufosinate 280 SL per year.
- Applications must be made a minimum of 5 days apart.
- **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of Glufosinate 280 SL on soybeans, including all application timings, per year.
- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- **DO NOT** apply Glufosinate 280 SL if soybeans show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply Glufosinate 280 SL through any type of irrigation system.
- Refer to the **ROTATIONAL CROP RESTRICTIONS** section under the **PRODUCT INFORMATION** heading of this label for the appropriate rotational crop plant back intervals.

#### Soybean Tank Mix Instructions:

- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Certain herbicide tank mixes may complement Glufosinate 280 SL.

- No additional surfactant is needed with any tank mix partner.
- Glufosinate 280 SL may be applied in tank mix combinations with other products provided these other products are labeled for the timing and method of application for the soybean to be treated.
- No label dosage rates may be exceeded.
- Glufosinate 280 SL cannot be mixed with any product containing a label prohibition against such mixing.

## APPLICATION DIRECTIONS FOR CANOLA, CORN, COTTON, AND SOYBEAN SEED PROPAGATION

Glufosinate 280 SL may be applied to select out susceptible “segregates”, i.e., canola, corn, cotton, and soybean plants that do not contain the LibertyLink trait during seed propagation.

- **Canola Containing the LibertyLink Trait:**

Glufosinate 280 SL may also be used in canola seed propagation as a foliar spray to selectively eliminate canola plants that do not carry the LibertyLink trait and as such, can be applied to remove susceptible segregates during canola seed propagation. Breeding material not possessing the LibertyLink trait will be severely injured or killed if treated with this herbicide. See **APPLICATION DIRECTIONS FOR USE ON CANOLA CONTAINING THE LIBERTYLINK TRAIT** for use rates and application timing.

- **Corn Containing the LibertyLink Trait:**

Inbred lines, plants not containing the LibertyLink trait, will be severely injured or killed if treated with this herbicide. A hooded sprayer may be used to protect plants from coming into contact with the herbicide application. For the selection of LibertyLink “segregates,” Glufosinate 280 SL may be applied at 22.0 fluid ounces per acre (0.4 lbs ai/A) plus AMS at 3.0 pounds per acre (17.0 pounds per 100 gallons) when corn is in the V-3 to V-4 stage of growth, i.e., 3 to 4 developed collars. A second treatment of 22.0 fluid ounces per acre plus AMS at 3.0 pounds per acre may be applied when the corn is in the V-6 to V-7 stage of growth or up to 24 inches tall. Sequential applications must be at least 10 days apart. When temperatures exceed 85 °F, the rate of AMS can be reduced to 1.5 pounds per acre (8.5 pounds per 100 gallons) to reduce potential leaf burn.

- **Cotton Containing the LibertyLink Trait:**

Glufosinate 280 SL may also be used in cotton seed propagation as a foliar spray to selectively eliminate cotton plants that do not carry the LibertyLink trait and as such, can be applied to remove susceptible segregates during cotton seed propagation. Breeding material not containing the LibertyLink trait will be severely injured or killed if treated with this herbicide. See **APPLICATION DIRECTIONS FOR USE ON COTTON CONTAINING THE LIBERTYLINK TRAIT** for use rates and application timing.

- **Soybeans Containing the LibertyLink Trait:**

For the selection of LibertyLink soybean “segregates,” Glufosinate 280 SL may be applied at up to 29.0 to 43.0 fluid ounces per acre (0.53 – 0.79 lbs ai/A) when soybean is in the third trifoliolate stage. A second treatment of 29.0 to 43.0 fluid ounces per acre (0.53 – 0.79 lbs ai/A) may be applied up to but not including the bloom growth stage of soybean. Sequential applications must be at least 5 days apart.

## APPLICATION DIRECTIONS FOR USE ON LISTED TREE, VINE, AND BERRY CROPS

Apply this to the tree, vine, and berry crops listed below. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

### **REGISTERED CROPS:**

[Option 1 (Note to Reviewer- Either Option 1 or Option 2 will appear on the container label)]

#### **Bushberry (Crop Subgroup 13B):**

blueberry, highbush; blueberry, lowbush; buffalo currant; currant, black; currant, red; elderberry; gooseberry; huckleberry; native currant

#### **Citrus Fruits (*Citrus* spp., *Fortunella* spp.) (Crop Group 10-10):**

Orange or tangerine/mandarin - Calamondin; citron; citrus hybrids; Mediterranean mandarin; orange, sour; orange, sweet; satsuma mandarin; tachibana orange; tangerine (mandarin); tangelo; tangor; trifoliolate orange; cultivars, varieties, and/or hybrids of these.

Lemon or lime - Australian desert lime; Australian finger lime; Australian round lime; brown river finger lime; kumquat; lemon; lime; mount white lime; New Guinea wild lime; Russell River lime; sweet lime; Tahiti lime; cultivars, varieties, and/or hybrids of these.

Grapefruit - Grapefruit; Japanese summer grapefruit; pummelo; tangelo; uniq fruit; cultivars, varieties, and/or hybrids of these.

#### **Juneberry**

#### **Lingonberry**

**Olives:** all olive varieties

**Pome Fruit (Crop Group 11-10):** Apple; crabapple; loquat; mayhaw; pear; pear, oriental; quince; azarole; hook; medlar; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties and/or hybrids of these.

**Salal**

**Stone Fruit (Crop Group 12-12):**

Apricot; cherry, sweet; cherry, tart; nectarine; peach; plum; plum, chickasaw; plum, damson; plum, Japanese; plumcot; prune; and cultivars varieties and/or hybrids of these

**Tree Nuts (Crop Group 14 including Pistachios):**

Almond; beech nut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut (bush nut); pecan; walnut, black and English

**Grapes:** all grape varieties (table, wine and raisins)

[Option 2 (Note to Reviewer- Either Option 1 or Option 2 will appear on the container label)]

**Bushberry (Crop Subgroup 13B):** blueberry, currant, elderberry, gooseberry, and huckleberry

**Citrus Fruit (Crop Group 10-10):** lemon, orange, grapefruit, lime, mandarin, tangerine, tangelo, calamondin, kumquat, pummelo, citron, citrus hybrids, Tangor, and cultivars, varieties and/or hybrids of these

**Juneberry**

**Lingonberry**

**Olives**

**Pome Fruit (Crop Group 11-10):** Apple, pear, crabapple, loquat, mayhaw, quince, azarole, Medlar, Tejocote, cultivars, varieties and/or hybrids of these

**Salal**

**Stone Fruit (Crop Group 12-12):** Apricot, cherry, peach, nectarine, plum, capulin, jujube, Sloe, and cultivars, varieties and/or hybrids of these

**Tree Nuts (Crop Group 14):** almonds, filberts, hickory nuts, macadamia nuts (bush nuts), pecans, pistachios, and walnuts

**Vineyards:** grape varieties (table, wine, and raisins)

**Application Rate and Timing:**

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of Glufosinate 280 SL. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Weeds under stress or in dense populations will require application at the highest specified label use rate. Stressed conditions also include prior treatments of other contact or systemic herbicides. Do not retreat these weeds with Glufosinate 280 SL until sufficient regrowth has occurred.

Apply Glufosinate 280 SL as a directed spray to control undesirable vegetation in tree, vine, and berries listed on this label. Apply as a broadcast, banded, or spot treatment application depending on the situation to control weeds listed under the heading **Weeds Controlled in Tree, Vine and Berry Crops**. Avoid direct spray or drift to desirable vegetation. Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat applications of Glufosinate 280 SL may be necessary to control plants generating from underground parts or seed.

Avoid contact of Glufosinate 280 SL solution, spray, drift or mist with green bark, stems, or foliage, as injury may occur to trees, vines, and berries. **Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers. Contact of Glufosinate 280 SL with parts of trees, vines, or berries other than mature brown bark can result in serious damage.**

**Application Methods for Broadcast Applications:**

Apply Glufosinate 280 SL at the rates listed below for broadcast applications based on weed size and stage of growth.

Weed Size and Stage	Rate of this product
Weeds < 3 in height	48 fl oz/A (0.88 lbs ai/A)
Weeds < 6 in height pre-tiller grasses	56 fl oz/A (1.02 lbs ai/A)
Weeds > 6 in height and/or grasses that have tillered	56-82 fl oz/A (1.02 – 1.5 lbs ai/A)

**Application Methods for Banded Spray Applications:**

Banded applications may be used using the following formula to calculate the amount of herbicide needed for orchard or vineyard strip sprays:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Rate per acre broadcast} = \text{Amount of herbicide needed for treatment}$$

### Application Methods for Spot or Directed-Spray Applications:

For spot or directed spray applications: mix Glufosinate 280 SL at 1.7 fluid ounces of product (0.031 lbs ai) per gallon of water. Apply to undesirable vegetation foliage until wet but prior to runoff. Ensure uniform and complete coverage. Thoroughly clean the sprayer following use. **DO NOT** make spot or directed spray applications to tree or vine trunk as injury may occur.

### Weeds Controlled in Tree, Vine and Berry Crops:

#### Broadleaf Weeds

Alkali sida	Fleabane, annual	Morningglory, ivyleaf	Smartweed, Pennsylvania
Ammannia, purple	Goosefoot	Morningglory, pitted	Sowthistle, annual
Arrowhead, California	Gromwell, field	Mullein, turkey	Spurge, prostrate
Buckwheat, wild	Groundcherry, cutleaf	Mustard, wild	Starthistle, yellow
Buffalobur	Groundsel, common	Nettle	Sunflower, common
Burclover, California	Henbit	Nightshade, black	Sunflower, prairie
Carpetweed	Jimsonweed	Nightshade, eastern black	Sunflower, volunteer
Chickweed, common	Knotweed	Nightshade, hairy	Swinecress
Chinese thornapple	Kochia	Pennycress	Thistle, Russian
Cocklebur, common	Lambsquarters, common	Pigweed, redroot	Turnip, wild
Copperleaf, Virginia	Lettuce, miner's	Pineapple-weed	Velvetleaf
Cudweed	Lettuce, prickly	Puncturevine	Vervain
Cutleaf eveningprimrose	London rocket	Purslane, common	Vetch
Dodder	Mallow, common	Radish, wild	Virginia copperleaf
Eclipta	Malva (little mallow)	Ragweed, common	Willowherb, panicle
Fiddleneck	Marestail	Ragweed, giant	
Filaree	Mayweed	Redmaids	
Filaree, redstem	Morningglory, entireleaf	Shepherd's-purse	

#### Grass Weeds

Barnyardgrass	Crabgrass, smooth	Junglerice	Shattercane
Bluegrass, annual	Cupgrass, woolly	Oat, wild	Sprangletop
Brome, ripgut	Foxtail, giant	Panicum, fall	Stinkgrass
Bromegrass, downy	Foxtail, green	Panicum, Texas	Wheat, volunteer
Canarygrass	Foxtail, yellow	Rush, toad**	Windgrass
Chess, soft	Goosegrass	Ryegrass, annual*	Witchgrass
Crabgrass, large	Johnsongrass, seedling	Sandbur, field	

#### Biennial and Perennial Weeds

Aster, white heath	Clover, red	Horsetail	Paragrass	Thistle, musk
Bindweed, field	Clover, white	Lovegrass	Plantain	Torpedograss
Bindweed, hedge	Dallisgrass	Mugwort	Poison ivy/oak	Vaseygrass
Bluegrass, Kentucky	Dandelion	Mullein, common	Quackgrass	Woodsorrel
Bromegrass, smooth	Dock, curly	Mustard, tansy	Rocket, yellow	Yarrow, common
Bulrush**	Dogbank (hemp)	Nutsedge, purple	Rose, wild	
Burdock	Fescue	Nutsedge, yellow	<i>Rubus</i> spp.	
Canada thistle	Golden rod, gray	Onion, wild	Spurge, leafy	
Clover, Alsike	Guineagrass	Orchardgrass	Thistle, bull	

\* apply to annual ryegrass prior to 3 inches in height

\*\*indicates suppression

### Restrictions to the Directions For Use on Tree, Vine, and Berry Crops:

- **DO NOT** apply more than 164 fluid ounces of Glufosinate 280 SL per acre (3 lbs ai/A) to **berry bushes** and **stone fruit** in a 12-month period. **DO NOT** make more than 2 applications per 12-month period at a maximum single application rate of 82 fluid ounces per acre (1.5 lbs ai/A). Make sequential applications a minimum of 28 days apart.
- **DO NOT** apply more than 246 fluid ounces of Glufosinate 280 SL per acre (4.5 lbs ai/A) to **tree nuts, vines, pome fruit, citrus and olives** in any calendar year. **DO NOT** make more than 3 applications per calendar year at a maximum single application rate of 82 fluid ounces per acre (1.5 lbs ai/A). Make sequential applications a minimum of 14 days apart.
- **DO NOT** graze harvest, and/or feed treated orchard cover crops to livestock.
- **DO NOT** apply Glufosinate 280 SL through any type of irrigation system.
- **DO NOT** apply Glufosinate 280 SL aerially to tree, berry, or vine crops.
- **Pre-harvest Interval (PHI): DO NOT** apply Glufosinate 280 SL within 14 days of nut, fruit, berry, or grape harvest.
- **DO NOT** make spot spray applications to suckers, as tree injury may occur.

### **Sucker Control with Glufosinate 280 SL:**

Glufosinate 280 SL will reduce or eliminate sucker growth when applied to suckers that are young, green, and uncalled. For sucker control, apply a split application approximately 4 weeks apart at 56.0 fluid ounces of product per acre (1.02 lbs ai/A). Coverage of all sucker foliage is necessary for optimum control. Suckers should not exceed 12 inches in length.

### **Tank Mix Partner Instructions:**

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Glufosinate 280 SL does not provide residual weed control or control of unexposed plant parts. Certain herbicide tank mixes may aid in the performance of Glufosinate 280 SL or be added to provide residual herbicide activity. No additional surfactant is needed with any tank mix partner. Glufosinate 280 SL may be applied in tank mix combinations with other products provided these other products are labeled for the timing and method of application for the crop to be treated. No label dosage rates may be exceeded. Glufosinate 280 SL cannot be mixed with any product containing a label prohibition against such mixing.

Advisable tank mix partners contain active ingredients including diuron, flumioxazin, napropamide, norfluzon, oryzalin, simazine, and terbacil.

## **APPLICATION DIRECTIONS FOR POTATO VINE DESICCATION**

### **Application Rates and Timing:**

Apply Glufosinate 280 SL at the beginning of natural senescence of potato vines. Apply 21.0 fluid ounces per acre (0.38 lbs ai/A). Do not split this application or apply more than 1 application per harvest. Potato varieties with heavy or dense vines may require an application of another desiccation product to complete vine desiccation.

Thorough coverage of the potato vines to be desiccated is essential. Use a sufficient volume of water (20.0 to 100 gallons per acre) to obtain a thorough coverage of the potato vines. Vary the gallons of water per acre and the spray pressure as indicated by the density of the potato vines to assure thorough spray coverage. Increase the spray volume to at least 30.0 gallons of water per acre when the potato vine canopy is dense or under cool and dry conditions. Apply Glufosinate 280 SL with the spray boom as low as possible to achieve thorough coverage of the potato vines for best control and to minimize drift potential.

### **Restrictions to the Directions For Use in Potato Vine Desiccation:**

- **DO NOT** apply more than 21 fluid ounces per acre (0.38 lbs ai/A) of Glufosinate 280 SL in a single application.
- **DO NOT** make more than 1 application of Glufosinate 280 SL per year.
- **DO NOT** apply more than 21.0 fluid ounces per acre (0.38 lbs ai/A) of Glufosinate 280 SL to potato vines per year.
- **Pre-Harvest Interval (PHI): DO NOT** harvest potatoes until 9 days or more after application of Glufosinate 280 SL.
- **DO NOT** apply to potatoes grown for seed.
- Potatoes, canola, corn, cotton, soybean, and sugar beets may be planted at any time after the application of Glufosinate 280 SL as a potato vine desiccant.
- **DO NOT** plant treated areas to wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale until 30 or more days after an application of Glufosinate 280 SL as a potato vine desiccant.
- **DO NOT** plant treated areas to crops other than those listed in this use precautions section until 120 or more days after an application of Glufosinate 280 SL as a potato vine desiccant.
- **DO NOT** split this application or apply more than one application per harvest.

## **FALLOW FIELDS OR POST HARVEST**

Glufosinate 280 SL may be used as a substitute for tillage to control or suppress weeds in the **WEED CONTROL FOR ROW CROPS** section of this label. Applications may be made in fallow fields, post-harvest, prior to planting or emergence of any crop listed on this label.

Apply Glufosinate 280 SL at 22.0 or 29.0 fluid ounces per acre (0.40 or 0.53 lb ai/A) to fallow fields to control specific weeds. Glufosinate 280 SL must be applied with ammonium sulfate. Tank mix with 2,4-D, glyphosate or atrazine to enhance total weed control.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

See **APPLICATION AND MIXING PROCEDURES** section of this label for additional information on how to apply Glufosinate 280 SL.

### **Restrictions to the Directions For Use in Fallow Fields or Post Harvest:**

- See the **PRODUCT INFORMATION** section of this label for rotational crop restrictions.
- **DO NOT** apply more than 29 fl oz/A (0.53 lbs ai/A) of Glufosinate 280 in a single application.
- **DO NOT** make more than one application per year.

## FARMSTEADS, RECREATIONAL, AND PUBLIC AREAS

When applied as directed, Glufosinate 280 SL controls undesirable plant vegetation in non-crop areas around farmstead building foundations, shelter belts, along fences, airports, commercial plants, storage and lumber yards, educational facilities, fence lines, ditch banks, dry ditches, schools, parking lots, tank farms, pumping stations, parks, and nonselective farmstead weed control. Refer to the **APPLICATION DIRECTIONS FOR USE ON LISTED TREE, VINE, AND BERRY CROPS** for appropriate application broadcast and spot spray application rates and lists weeds controlled.

### Restrictions to the Directions For Use in Farmsteads, Recreational, and Public Areas:

- **DO NOT** make more than three applications of Glufosinate 280 at a maximum rate of 82 fl oz/A (1.5 lbs ai/A) per year. Make sequential applications a minimum of 14 days apart.
- **DO NOT** apply more than 246 fl oz/A (4.5 lbs ai/A) of Glufosinate 280 per year.
- **DO NOT** apply this product through any type of irrigation system.

## STORAGE AND DISPOSAL

Do not contaminate water, food, feed or seed by storage or disposal.

**PESTICIDE STORAGE:** Do not use or store near heat or open flame. Keep container tightly closed and dry in a cool, well ventilated place. Storage temperature should not exceed 125° F. If storage temperature of this product is below 32° F, the material should not be pumped until its temperature exceeds 32° F. Protect against direct sunlight.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### **CONTAINER HANDLING:**

**[Note to Reviewer:** The following statement will be included on all Final Printed Labels bearing multiple Container Handling statements] **NOTE:** This product is available in multiple containers. Follow the container handling instructions below that apply to your container type / size.”

**[Note to Reviewer:** The bracketed section headers will be included when multiple container types / sizes are listed on the label.]

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**[Non-refillable Containers 5 Gallons or Less:]** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

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**[Non-refillable Containers Larger than 5 Gallons:]** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

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**[Refillable Containers Larger than 5 Gallons:]** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

**[Refillable Container:]** Refill this container with pesticide only. Do not reuse this container for any other purpose. Close all openings and replace all caps.

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**SEED DISPOSAL:** To dispose of out-of-date or otherwise unmarketable seed from plants, which have been treated with Glufosinate 280 SL, broadcast and lightly incorporate seed into field soils using disc or other suitable implement. Any resulting crop may be destroyed by chemical or mechanical means. Alternatively, seed may be destroyed by deep burial, incineration or landfill disposal.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call  
CHEMTREC 1-800-424-9300**

### **WARRANTY DISCLAIMER**

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

### **LIMITATION OF LIABILITY**

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THE NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR ARISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

LibertyLink is a registered trademark of Bayer CropScience

### **Optional Marketing Claims:**

[Note to reviewer: Any text found in brackets "[ " "]" is optional on container label.]

[Note to reviewer: State restrictions may not be found on the container label if the product is not registered in that associated state.]

[Note to reviewer: Making the product more restrictive than Federally accepted, incorporating the optional statement "Not for use in California." may be included on the container label for any use, weed or crop as determined to be necessary to procure CADPR registration.]